<110> Walke, D. Wade
      Mathur, Brian
      Turner, C. Alexander Jr.
      Friddle, Carl Johan
      Gerhardt, Brenda

<120> Novel Human Ion Channel Proteins and Polynucleotides Encoding the Same

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<150> US 60/221,643
<151> 2000-07-28

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<151> 2000-08-02

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gtcaccaccg ccaagcccga gggcccccagc gaccctccgg ccctgctgtc cacgctgaat       300
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gactacgagg agcagacaga cgaatacttc ttcgaccgcg acccggccgt cttccagctg       480
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<212> PRT
<213> homo sapiens

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Gln Thr Asp Glu Tyr Phe Phe Asp Arg Asp Pro Ala Val Phe Gln Leu
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Val Tyr Asn Phe Tyr Leu Ser Gly Val Leu Val Leu Asp Gly Leu
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Cys Pro Arg Arg Phe Leu Glu Glu Leu Gly Tyr Trp Gly Val Arg Leu
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Lys Tyr Thr Pro Arg Cys Cys Arg Ile Cys Phe Glu Glu Arg Arg Asp
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Glu Leu Ser Glu Arg Leu Lys Ile Gln His Glu Leu Arg Ala Gln Ala
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Glu Cys Phe Thr Gly Glu Gly His Gln Arg Gly Gln Thr Val Gly Ser
        355                 360                 365
Val Gly Lys Val Gly Gln Val Leu Arg Val Met Arg Leu Met Arg Ile
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Phe Ile Ala Met Gly Ile Phe Thr Phe Ser Ala Ala Val Tyr Ser Val
        420                 425                 430
Glu His Asp Val Pro Ser Thr Asn Phe Thr Thr Ile Pro His Ser Trp
    435                 440                 445
Trp Trp Ala Ala Val Ser Ile Ser Thr Val Gly Tyr Gly Asp Met Tyr
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2

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Arg Glu Arg Gly Glu Val Asn Phe Met Gln Arg Ala Arg Lys Lys Ile
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Asn
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<212> DNA
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<212> PRT
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3

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<212> DNA
<213> Homo sapiens

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Gln Asp Asp Gly Gln Asp Arg Glu Arg Leu Thr Tyr Phe Gln Asn Leu
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4

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                         85                      90                      95
     Phe Phe Ile Val Phe Thr Val Ile Gly Ser Leu Phe Leu Met Asn Leu
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                115                     120                     125
     Leu Gln Thr Ser Leu Phe Arg Arg Leu Gly Thr Arg Ala Ala Phe
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     Thr Arg Arg Gly Pro Ser Thr Ser Leu Arg Phe Cys Arg Ala Pro Ser
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     Cys Cys Leu Leu Ser Val Met Thr Ser Ser Trp Gly Phe Ser Thr Ala
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     Trp Ala Cys Glu Gly Thr Cys Pro Thr Pro Ala Thr Cys Leu Thr Gly
                         245                     250                     255
     Ser Ser Pro Leu Ser Cys Trp Arg Pro Glu Met Val Gly Leu Leu Ser
                    260                     265                     270
     Leu Trp Asp Met Thr Arg Met Leu Asn Met Leu Ile Val Phe Arg Phe
                275                     280                     285
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     305                     310                     315                     320
     Val Val Tyr Tyr Val Phe Ala Ile Ile Gly Ile Asn Leu Phe Arg Gly
                         325                     330                     335
     Val Ile Val Ala Leu Pro Gly Asn Ser Ser Leu Ala Pro Ala Asn Gly
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     Ser Ala Pro Cys Gly Ser Phe Glu Gln Leu Glu Tyr Trp Ala Asn Asn
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     Val Asn Asn Trp Gln Val Phe Leu Asp Ala Tyr Arg Arg Tyr Ser Gly
     385                     390                     395                     400
     Pro Trp Ser Lys Ile Tyr Phe Val Leu Trp Trp Leu Val Ser Ser Val
                         405                     410                     415
     Ile Trp Val Asn Leu Phe Leu Ala Leu Ile Leu Glu Asn Phe Leu His
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     Lys Trp Asp Pro Arg Ser His Leu Gln Pro Leu Ala Gly Thr Pro Glu
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     Ala Thr Tyr Gln Met Thr Val Gly Leu Leu Phe Arg Asp Ile Leu Glu
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